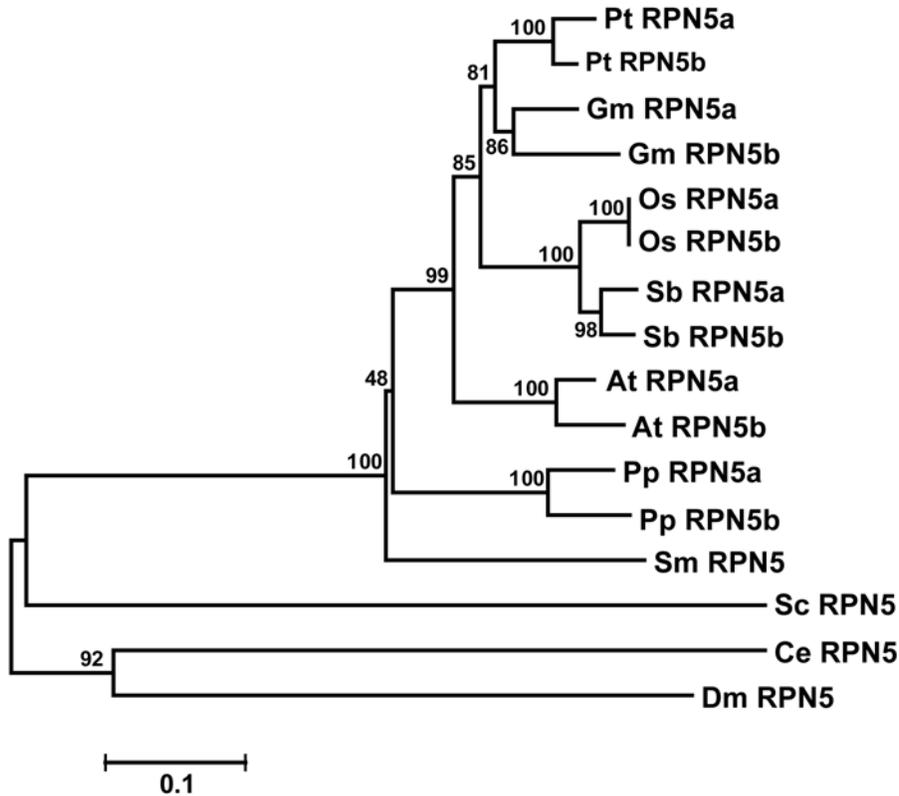


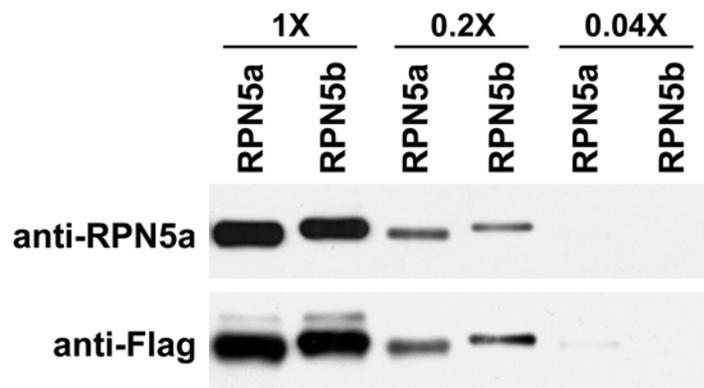
Supplemental Data Book et al., (2009) The RPN5 subunit of the 26s proteasome is essential for gametogenesis, sporophyte development, and complex assembly in Arabidopsis.

Supplemental Figure 1. Book *et al.*



Supplemental Figure 1. Phylogenetic comparison of RPN5 protein homologs. Phylogenetic tree was prepared with protein sequences from *Arabidopsis thaliana* (At), *Populus trichocarpa* (Pt), *Glycine max* (Gm), *Oryza sativa* (Os), *Sorghum bicolor* (Sb), *Physcomitrella patens* (Pp), *Selaginella moellendorffii* (Sm), *Caenorhabditis elegans* (Ce), *Drosophila melanogaster* (Dm), and *Saccharomyces cerevisiae* (Sc). Bootstrap values from 1000 replicates are indicated and the tree is rooted at the midpoint.

Supplemental Figure 2. Book *et al.*



Supplemental Figure 2. RPN5a and RPN5b are equally recognized by anti-RPN5a antibodies. Recombinant RPN5a and RPN5b were expressed with a N-terminal FLAG epitope tag in *E. coli*. Equal volumes of induced cells were separated by SDS-PAGE and immunoblotted with anti-RPN5a or anti-Flag antibodies.

Supplemental Table 1. Oligonucleotide primer sequences.

P1 CAACATCCGTCTCCGTTTTCG
P2 GACGCGAACGGTTCCATC
P3 TCAGCAGGAGCCTCTTCTACC
P4 TGGGTCATTGCAGATAGTGATG
P5 CCACTGAATTCTGACGTACC
P6 CACTTCGTTAGTGTACAGATCC
P7 AATGATTATGTTAGAACGAGAGCCTGAAAG
P8 TTCCCATCTGAAACAGATTCTCAATCCCTA
P9 CCGGGTTCTCAAGCTCTTAGT
P10 AGGAAAACCCAGAACAATGGA
P11 CCCCTGCGCTGACAGCCGGAACAC
P12 TGGTTCACGTAGTGGGCCATC
P13 GCCTTTTCAGAAATGGATAAATAGCCTTGCTTCC
P14 CCACTGAATTCTGACGTACC
P15 CACCGAGACAGACCATTGATTTGTGAATAG
P16 GAGTTGATTCTCGTTGGATTTCTCACG
P17 CACCAGCACGAAGCTTACGAGAAGTAGTA
P18 TGCTAAACGCCGGGAATCAATACTCG
P19 CAAAGCCGCTCTCAGACCTATGGTGAGCAAGGGCGAG
P20 CTCGCCCTTGCTCACCATAGGTCTGAGAGCGGCTTTG
P21 CATAAAGTTGACTAAGAGCTATGGTGAGCAAGGGCGAG
P22 CTCGCCCTTGCTCACCATAGCTCTTAGTGCAACTTTATG
P23 ATGGAAGAAAGTAGACAACCTC
P24 CTTGTACAGCTCGTCCATG
P25 CATTCTCTCTCTCAGTGAACCTTTAGAAGT
P26 AATGATTATGTTAGAACGAGAGCCTGAAAG
P27 GGGGACAAGTTTGTACAAAAAGCAGGCTTCGCGGCCGCATGGCGAGTCTTCAATTAC
P28 GGGGACCACTTTGTACAAGAAAGCTGGGTCTCTTCAAGCAGAGATCG
P29 GGGGACAAGTTTGTACAAAAAGCAGGCTTCGCGGCCGCATGGCAAGTCTCCGATTTTC
P30 GGGGACCACTTTGTACAAGAAAGCTGGGTGAGTAATAGAAAACAGG
P31 GCGGCCGCTTTGATTACTCCAGCAAAATCG
P32 GCGGCCGCGTGAGAAATCCAACGAGAATC
P33 GCGGCCGCTAGAAACCCACAAATATC
P34 GCGGCCGCTGCTAAACGCCGGGAATC
P35 CCAGAATTTCAACTAGTTTGAGTTGATTCT
P36 GGAAACACTGATACTAGTTTTTACCACATA
P37 CATTATTCTCTCTCTAGAAGTATTGATTCC
P38 CTGAGAGAGAGATCTAGAGCTCTTAGTGCA